

2002, such as during startup. The volatile memory **2010** can also include a high-speed RAM such as static RAM for caching data.

[0072] The system bus **2008** provides an interface for system components including, but not limited to, the memory subsystem **2006** to the processing unit(s) **2004**. The system bus **2008** can be any of several types of bus structure that can further interconnect to a memory bus (with or without a memory controller), and a peripheral bus (e.g., PCI, PCIe, AGP, LPC, etc.), using any of a variety of commercially available bus architectures.

[0073] The computer **2002** further includes storage subsystem(s) **2014** and storage interface(s) **2016** for interfacing the storage subsystem(s) **2014** to the system bus **2008** and other desired computer components. The storage subsystem (s) **2014** can include one or more of a hard disk drive (HDD), a magnetic floppy disk drive (FDD), and/or optical disk storage drive (e.g., a CD-ROM drive DVD drive), for example. The storage interface(s) **2016** can include interface technologies such as EIDE, ATA, SATA, and IEEE 1394, for example.

[0074] One or more programs and data can be stored in the memory subsystem **2006**, a removable memory subsystem **2018** (e.g., flash drive form factor technology), and/or the storage subsystem(s) **2014**, including an operating system **2020**, one or more application programs **2022**, other program modules **2024**, and program data **2026**. Generally, programs include routines, methods, data structures, other software components, etc., that perform particular tasks or implement particular abstract data types. All or portions of the operating system **2020**, applications **2022**, modules **2024**, and/or data **2026** can also be cached in memory such as the volatile memory **2010**, for example. It is to be appreciated that the disclosed architecture can be implemented with various commercially available operating systems or combinations of operating systems (e.g., as virtual machines).

[0075] The storage subsystem(s) **2014** and memory subsystems (**2006** and **2018**) serve as computer readable media for volatile and non-volatile storage of data, data structures, computer-executable instructions, and so forth. Computer readable media can be any available media that can be accessed by the computer **2002** and includes volatile and non-volatile media, removable and non-removable media. For the computer **2002**, the media accommodate the storage of data in any suitable digital format. It should be appreciated by those skilled in the art that other types of computer readable media can be employed such as zip drives, magnetic tape, flash memory cards, cartridges, and the like, for storing computer executable instructions for performing the novel methods of the disclosed architecture.

[0076] A user can interact with the computer **2002**, programs, and data using external user input devices **2028** such as a keyboard and a mouse. Other external user input devices **2028** can include a microphone, an IR (infrared) remote control, a joystick, a game pad, camera recognition systems, a stylus pen, touch screen, gesture systems (e.g., eye movement, head movement, etc.), and/or the like. The user can interact with the computer **2002**, programs, and data using onboard user input devices **2030** such a touchpad, microphone, keyboard, etc., where the computer **2002** is a portable computer, for example. These and other input devices are connected to the processing unit(s) **2004** through input/output (I/O) device interface(s) **2032** via the system bus **2008**, but can be connected by other interfaces such as a parallel port, IEEE 1394 serial port, a game port, a USB port, an IR inter-

face, etc. The I/O device interface(s) **2032** also facilitate the use of output peripherals **2034** such as printers, audio devices, camera devices, and so on, such as a sound card and/or onboard audio processing capability.

[0077] One or more graphics interface(s) **2036** (also commonly referred to as a graphics processing unit (GPU)) provide graphics and video signals between the computer **2002** and external display(s) **2038** (e.g., LCD, plasma) and/or onboard displays **2040** (e.g., for portable computer). The graphics interface(s) **2036** can also be manufactured as part of the computer system board.

[0078] The computer **2002** can operate in a networked environment (e.g., IP) using logical connections via a wired/wireless communications subsystem **2042** to one or more networks and/or other computers. The other computers can include workstations, servers, routers, personal computers, microprocessor-based entertainment appliance, a peer device or other common network node, and typically include many or all of the elements described relative to the computer **2002**. The logical connections can include wired/wireless connectivity to a local area network (LAN), a wide area network (WAN), hotspot, and so on. LAN and WAN networking environments are commonplace in offices and companies and facilitate enterprise-wide computer networks, such as intranets, all of which may connect to a global communications network such as the Internet.

[0079] When used in a networking environment the computer **2002** connects to the network via a wired/wireless communication subsystem **2042** (e.g., a network interface adapter, onboard transceiver subsystem, etc.) to communicate with wired/wireless networks, wired/wireless printers, wire/wireless input devices **2044**, and so on. The computer **2002** can include a modem or has other means for establishing communications over the network. In a networked environment, programs and data relative to the computer **2002** can be stored in the remote memory/storage device, as is associated with a distributed system. It will be appreciated that the network connections shown are exemplary and other means of establishing a communications link between the computers can be used.

[0080] The computer **2002** is operable to communicate with wired/wireless devices or entities using the radio technologies such as the IEEE 802.xx family of standards, such as wireless devices operatively disposed in wireless communication (e.g., IEEE 802.11 over-the-air modulation techniques) with, for example, a printer, scanner, desktop and/or portable computer, personal digital assistant (PDA), communications satellite, any piece of equipment or location associated with a wirelessly detectable tag (e.g., a kiosk, news stand, restroom), and telephone. This includes at least Wi-Fi (or Wireless Fidelity) for hotspots, WiMax, and Bluetooth™ wireless technologies. Thus, the communications can be a predefined structure as with a conventional network or simply an ad hoc communication between at least two devices. Wi-Fi networks use radio technologies called IEEE 802.11x (a, b, g, etc.) to provide secure, reliable, fast wireless connectivity. A Wi-Fi network can be used to connect computers to each other, to the Internet, and to wire networks (which use IEEE 802.3-related media and functions).

[0081] What has been described above includes examples of the disclosed architecture. It is, of course, not possible to describe every conceivable combination of components and/or methodologies, but one of ordinary skill in the art may recognize that many further combinations and permutations